Discussion of Monsoon Integration for DES

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Monsoon Software Review

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* Now that there is some experience with the Monsoon system, need to define integration with DES project.

* Hopefully today's discussion will achieve this goal … and attract volunteers.

* To begin, here is a short presentation based on (and thanks to) conversations with many of you.

Need Easy-to-Use Hardware Config File

Crate	slot	type	id
1	1	MCB	101
1	2	CBB	112
1	3	ACQ	123
2	1	MCB	133
2	2	CBB	142
etc …			

Automatically use:

"calib112.dat"

"calib142.dat"

to set voltages, clocks, etc …

❖ Only one text file to manage in the lab
  (after some dirty work to prepare the calib### files)
❖ Board swap => change id … that's it !
❖ Initialization reads id from each board to verify
❖ Could be part of public Monsoon product ?

Need DES-Specific FP Configuration

GROUP1:
   CCD: LBL1 LBL2 LBL3
   voltages, clocks, delays
   Cr 1 Slot 3 chan 0 1 2

GROUP2:
   CCD: LBL4 LBL5 LBL6
   voltages, clocks, delays
   Cr 1 Slot 3 chan 3 4 5

GROUP3:
   CCD: LBL8
   voltages, clocks, delays
   Cr 1 Slot 3 chan 6

etc …

Store many configurations
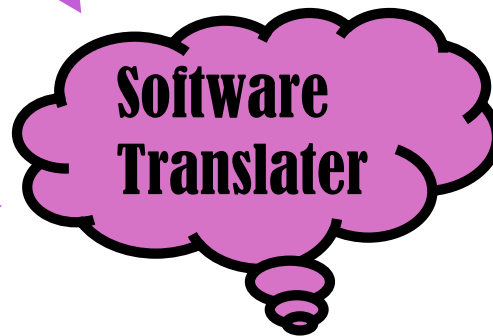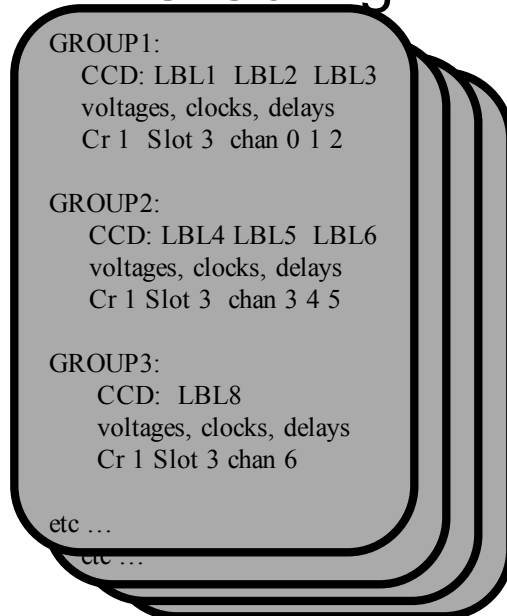In a data base

Needs a lot more thought !

DES TRANSLATOR

Hardware Config

Crate slot	type	id
1 1	MCB	101
1 2	CBB	112
1 3	ACQ	123
2 1	MCB	133
2 2	CBB	142
etc …		

Software Translater

Monsoon FP:
ini, cgi, txt, csv,
etc …

DES-Config

GROUP1:
  CCD: LBL1 LBL2 LBL3
  voltages, clocks, delays
  Cr 1 Slot 3 chan 0 1 2

GROUP2:
  CCD: LBL4 LBL5 LBL6
  voltages, clocks, delays
  Cr 1 Slot 3 chan 3 4 5

GROUP3:
  CCD: LBL8
  voltages, clocks, delays
  Cr 1 Slot 3 chan 6

etc …

❖ Only 1 hardware config
❖ Each DES config gets translated
   into a Monsoon FP
❖ SISPI selects an existing Monsoon FP
❖ Can take data without understanding
   how Monsoon works.

5